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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/531,364

10/25/2005

Alan Richard Reece

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EXAMINER

STORMER, RUSSELL D

ART UNIT

PAPER NUMBER

3617

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/531,364	<b>Applicant(s)</b> REECE, ALAN RICHARD	
	<b>Examiner</b> Russell D. Stormer	<b>Art Unit</b> 3617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 December 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-9 and 11 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 April 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the plurality of second coupling members included on the first coupling device, or the first and second coupling device, as set forth in claim 6 must be shown or the feature(s) canceled from the claim(s).

#### **No new matter should be entered.**

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Specification***

The disclosure is objected to because of the following informalities:

The reference character 113, found in figure 4, does not appear in the specification. The reference character 118 has been found, but is not used in the specification as part of the description of figure 4.

Appropriate correction is required.

The specification is objected to as failing to provide proper antecedent basis for the claim terminology.

Applicant's amendment to the specification is noted, but it appears that the following terms still lack antecedent basis in the specification: The "torque transfer device" and the "removable securing device."

See 37 CFR 1.75(d)(1) and MPEP § 608.01(o).

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-3, 5, 9, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Weiss.

Weiss discloses a wheel mounting assembly comprising a wheel having a first support 17, a second support plate 3 a first coupling means 5, 12 for transferring torque, a second coupling means 9, and a flange 8 to which the second plate is attached to.

Since all coupling means have a breaking point, it is inherent that the coupling means 9 would have a predetermined level at which it would no longer transfer radial or axial forces and would break.

With respect to claim 11, it is inherent that the wheel assembly would be used on a vehicle having a chassis and a cab.

Claims 1, 2, 5, 9, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Kuhlman.

Kuhlman discloses a wheel mounting assembly comprising a first support plate 11, a second support plate 13, first coupling members 35, 36, 37, 38, and a second coupling device 30.

Since all coupling means have a breaking point, it is inherent that the second coupling device 30 would have a predetermined level at which it would no longer transfer radial or axial forces and would break.

With respect to claim 11, it is inherent that the wheel assembly would be used on a vehicle having a chassis and a cab.

Claims 1, 2, 5, 8, 9, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Hayashi (Japanese document 59-118502).

Hayashi discloses a wheel assembly comprising a wheel having a first support plate **D**, a second support plate 13, a torque transfer device 16, a first coupling device 3 for transferring torque between the first and second plates, a second coupling device **B**, and a flange **H** to which the second plate is attached to. The second support plate has a region of decreasing cross section **A**.

It is inherent that the second coupling device **B** would have a predetermined level at which it would no longer transfer radial or axial forces, inasmuch as all fastening members have a breaking point.

With respect to claim 11, it is inherent that the wheel assembly would be used on a vehicle having a chassis and a cab.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weiss.

With respect to claim 6, to provide additional fracturable second coupling members would have been obvious as a matter of duplication of parts. See *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960).

With respect to claim 7, to mount the second support plate to a gearbox which is mounted to an axle would have been obvious as a mechanical expedient which would allow the wheel to be mounted to different types of vehicles.

#### ***Allowable Subject Matter***

Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

Applicant's arguments filed December 26, 2007 have been fully considered but they are not persuasive.

With respect to the objection to the drawings, the subject matter of claim 6 in which the first coupling device has a plurality of second coupling members is not shown in the drawings.

With respect to the omission of the reference characters 113 and 118 from the specification, Applicant appears to agree that it should appear in the specification, yet

has not amended the specification to correct this deficiency. The proposed amendment to page 11, lines 28-30 does not appear to correct this deficiency, at least in part because the specification does not address this issue in lines 28-30 as alleged.

With respect to the rejection of claim 1 over Weiss, Applicants argues that in the last paragraph of claim 1

“it is also clear that, when the radial and axial forces exceed a predetermined level, it is the second coupling that fails resulting in the combination of the first and second couplings being unable to transfer radial and axial forces. It is therefore a requirement of claim 1 that the second coupling must be capable of failing in order that forces are no longer transferred and that the failure of the second coupling must occur as a result of radial or axial forces before any other components of the wheel assembly fail. If this were not the case, the wheel assembly in question would not provide the advantages of the present claimed invention.” (emphasis added)

This line of reasoning is not persuasive because in claim 1, the first coupling device is connected between the first and second support plates for transferring torque, and the second coupling device is connected between the first and second support plates for transferring radial and axial forces. The last paragraph limits "the or each said first and second coupling device" being "incapable of transferring" radial and axial forces, and (of) "exceeding respective predetermined levels."

Contrary to what Applicant alleges is set forth in the claim, both the first coupling and the second coupling are set forth in the last paragraph as being incapable of transferring the radial and axial forces, even though such is not set forth earlier in the



claim with respect to the first coupling device. Further, there is no requirement in the claim that the failure of the second coupling must occur before any of the other wheel components. In fact, there is no positive recitation of the second coupling failing at all, only that the first and second couplings cannot exceed predetermined levels.

Applicant's statement that the patent to Weiss does not disclose "a wheel rim adapted to support a tire" is not well-taken, and is considered to be spurious at best. Although the patent refers to the central portion of the wheel as a "wheel rim," it is clear to anyone of ordinary skill in the art that the central portion 17 is a spider or hub and spoke assembly regardless of the nomenclature used by Weiss, and a tire supporting rim (unlabelled) is shown as being mounted to the outer periphery of the spider and fastened by the usual bolts. A tire is shown in phantom to be mounted on the rim. To suggest otherwise is ridiculous. The portion 17 of the wheel of Weiss meets the limitation of first a support as broadly recited in claim 1.

With respect to the arguments presented on pages 17 and 18 of the response, the mere possibility that Weiss does not make reference to the failure of any of the components of the wheel does not preclude the patent from anticipating the claims. As set forth above, Weiss meets all of the structural limitations of claims 1-3, 5, 7, 9, and 11, and is therefore capable of performing the same functions as the assembly of claim 1. Inasmuch as all wheel components will fail under a given load, the assembly of Weiss meets any limitations of the claims directed to the failure of coupling devices

because the elements of the assembly of Weiss would inherently fail at a predetermined point. Therefore, the functions of the elements of claim 1 are implicitly taught by Weiss.

With respect to the rejections under 35 U.S.C. 102, the arguments directed toward the Kuhlman and Hayashi references are noted, but appear to be similar to those presented against Weiss, and these arguments are not persuasive for the same reasons.

On page 23, Applicant's argument with respect to claim 6, the arguments concerning the "wheel rim 17 are still spurious. Further down the page, Applicant states that Weiss cannot suggest a second support plate adapted to be mounted to an axle. It is not clear which claim this is referring to since this limitation does not appear in claim 6. If it is claim 1 that is being argued again, the reference is merely required to be capable of being mounted to an axle to meet the limitation of "adapted to be" mounted on an axle. All wheel assemblies are capable of being mounted on an axle, whether or not they must be modified first.

### ***Conclusion***

Applicant's amendment necessitated the new ground of rejection presented in this Office action.

The positive recitation of the second support plate being mounted to a gearbox which is mounted to an axle necessitated the new grounds of rejection of claim 7.

Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Russell D. Stormer whose telephone number is (571) 272-6687. The examiner can normally be reached on Monday through Friday, 9 AM to 4 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Morano can be reached on (571) 272-6684. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3617

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Russell D. Stormer/  
Primary Examiner, Art Unit 3617